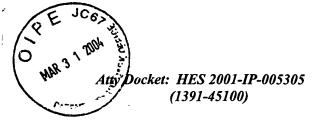
Patent



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| David Joe Steele et al. | § | |
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| 10/681,020 | § § | Group Art Unit: 3672 |
| October 6, 2003 | § | Examiner: N/A |
| MALLY-CONTROLLED VALVES AND ODS OF USING THE SAME IN A | \$ \$ \$ | Confirmation No.: 6184 |
| | 10/681,020 | 10/681,020 \$ October 6, 2003 \$ MALLY-CONTROLLED VALVES AND \$ ODS OF USING THE SAME IN A \$ |

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 I hereby certify that this correspondence and PTO Form 1449 with citations attached, is being deposited with the United States Postal Service by First Class Mail, postage prepaid, addressed to: Mail Stop: DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

3-29-2004
(Date of Deposit)

INFORMATION DISCLOSURE STATEMENT

Commissioner:

This Information Disclosure Statement, including completed Form PTO-1449, comprises a list of pertinent art of which Applicants are aware. A copy of each foreign patent and publication listed on Form PTO-1449 is enclosed herewith.

As a part of this submission, an electronic Information Disclosure Statement (eIDS) is being transmitted on this date, and includes a listing of the U.S. Patents and Published Applications: A

printed copy of that submission is attached hereto. In accordance with 37 C.F.R. 1.98(e), no paper copies of those U.S. Patent and Published Applications are enclosed.

The submission of this Information Disclosure Statement and Form PTO-1449 is not an admission that the art cited is "prior" with respect to the present invention, nor is it a representation that no better art exists. Applicants hereby reserve the right to swear behind or otherwise disprove any alleged "prior" nature of any art cited should the facts support and that situation warrant such an action. It is submitted that the art cited does not constitute a bar to the patentability of Applicants' invention under 35 U.S.C. § 102 or § 103.

Date: 3-29-04

Respectfully submitted, CONLEY ROSE, P.C.

Rodney B. Carroll Reg No. 39,624

5700 Granite Parkway, Suite 330 Plano, Texas 75024 (972) 731-2288 ATTORNEY FOR APPLICANTS

Approved for use through 07/31/2006. OMB 0651-0031

| Ui | nder the Paperwork Re | eduction/ | Act of 1995, no persons are | U.S. Patent and T required to respond to a collection | rademark Office; U.S. DEPARTMENT OF COMMERCE n of information unless it contains a valid OMB control number. | | |
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| Substitu | ute for form 1449/P | TO/C | 57 | Complete if Known | | | |
| Justin | 210 101 101111 1 1 1011 | 1 | MAR 3 1 2004 | Application Number | 10/681,020 | | |
| | | | SCLOSURE/ | Filing Date | October 6, 2003 | | |
| S | TATEMENT | BYX | PPLICANT | First Named Inventor | David Joe Steele | | |
| | (Use as many sl | neets as | necessary) | Art Unit | 3672 | | |
| | | | | Examiner Name | Not Assigned | | |
| Sheet | 1 | of | 3 | Attorney Docket Number | HES 2001-IP-005305 (1391-45100) | | |

| | U.S. PATENT DOCUMENTS | | | | | | | | | |
|------------------------|-----------------------|---|--------------------------------|--|---|--|--|--|--|--|
| Examiner's Initials | Cite No.1 | Document Number Number-Kind Code ^{2 (if known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | | | | | |
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| | FOREIGN PATENT DOCUMENTS | | | | | | | | | | | |
|-----------|--------------------------|---|------------------|-----------------------------|---|----------------|--|--|--|--|--|--|
| Examiner | Cite | Foreign Patent Document | Publication | Name of Patentee or | Pages, Columns, Lines, | | | | | | | |
| Initials* | No.¹ | County Code ³ -Number ⁴ -Kind Code ^{5(if known)} | Date MM-DD-YY | Applicant of Cited Document | Where Relevant Passages Or Relevant Figures Appear | T ⁶ | | | | | | |
| | AA | GB 2 385 078 | 08/13/2003 | Baker Hughes | | | | | | | | |
| | AB | GB 2 371 578A | 07/31/2002 | Baker Hughes | | | | | | | | |
| | AC | EP 0 841 510 B1 | 01/09/2002 | Matsushita | | | | | | | | |
| | AD | EP 0 841 510 A1 | 05/13/1998 | Matsushita | | | | | | | | |
| | AE | EP 0 697 315 A3 | 04/15/1998 | Daewoo | | | | | | | | |
| | AF | EP 0 697 315 A2 | 02/21/1996 | Daewoo | | | | | | | | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

^{*} Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ² See Kinds of Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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| Substitut | te for form 1449/P | TO | | Complete if Known | | | |
|-----------|-----------------------------------|----------|------------|------------------------|-----------------------------|--|--|
| | | | | Application Number | 10/680,020 | | |
| INF | ORMATIO | V DIS | SCLOSURE | Filing Date | October 6, 2003 | | |
| STA | STATEMENT BY APPLICANT | | | First Named Inventor | David Joe Steele | | |
| | (Use as many sh | neets as | necessary) | Art Unit | 3672 | | |
| | (coo as many choose as necessary) | | | Examiner Name | N/A | | |
| Sheet | 2 | of | 3 | Attorney Docket Number | 2003-IP-005305 (1391-45100) | | |

NON PATENT LITERATURE DOCUMENTS

| | | | 1 |
|-----------------------|--------------------------|--|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue numbers(s), publisher, city and/or country where published. | T ² |
| | AA | ANDERSEN, A., et al, "Feasibility Study of Shape Memory Alloys in Oil Well Applications," Sintef Petroleum Research, 01/97, pp. 1-5, 58, 60, 63, 66-67, 83, 85-86. | |
| | AB | "Design of Fluid Systems, Steam Utilization," Spirax Sarco, 1951, pp. 1-8, 21-27, 68-71. | |
| | AC | DOAN, L.T., et al, "Performance of the SAGD Process in the Presence of Water Sand- A Preliminary Investigation," <i>Journal of Canadian Petroleum Technology</i> , January 2003, Vol. 42, No.1, pp. 25-41. | |
| | AD | ERLANDSEN, SIGURD, et al, "World's First Multiple Fiber Optic Intelligent Well," World Oil, March 2003, Vol. 224, No. 3, 8 pages. | |
| | AE | Figure 9, Typical Steam Circuit, "Design of Fluid Systems: Steam Utilization," Spirax Sarco, Copyright 1985, p. 11. | |
| | AF | NASR, T.N., et al, "Novel Expanding Solvent-SAGD Process ES-SAGD," Journal of Canadian Petroleum Technology, Technical Note, 4 pages. | |
| | AG | NASR, T.N., et al, "SAGD Application In Gas Cap and Top Water Oil Reservoir, " Journal of Canadian Petroleum Technology, January 6, 2003, pp.32-38. | |
| | AH | POTMA, J., et al, "Thermal Horizontal Completions Boost Heavy Oil Production," World Oil, February 2003, pp. 83-85. | |
| | Al | Total Canada- Request for Proposal- SAGD Steam Diversion Systems, Methods, and Cost Estimate, 3 pages. | |
| | AJ | WALLS, E., et al, "Residual Oil Saturation Inside the Steam Chamber During SAGD," Journal of Canadian Petroleum Technology, January 2003, Vol. 42, No. 1, pp. 39-47. | |
| | AK | http://www.conocophillips.com/canada/news/032502 gas bitumen.asp, 10/1/2003, 2 pages. | |
| | AL | http://www.conocophillips.com/canada/ops/surmont.asp, 10/1/2003, 2 pages. | |
| | AM | Fluid Injection into Tight Rocks, http://www.132.175.127.176/ngotp/projects/ngotp.cfm?Project ID=OGRT-010, 8/11/2003. | |
| | AN | P.C. McKenzie Company, "How does an Amot Thermostic Control Valve Work?" http://www.mckenziecorp.com/amot_valve.htm , 9/4/2003. | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

^{*} Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

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| Substitut | te for form 1449/F | PTO | | Complete if Known | | | |
|-----------|------------------------------------|-----------|------------|------------------------|-----------------------------|--|--|
| | | | | Application Number | 10/680,020 | | |
| INFO | ORMATIO | N DIS | SCLOSURE | Filing Date | October 6, 2003 | | |
| STA | TEMENT | BY A | PPLICANT | First Named Inventor | David Joe Steele | | |
| | (Use as many : | sheets as | necessary) | Art Unit | 3672 | | |
| | (case as many cheese as heccasely) | | | Examiner Name | N/A | | |
| Sheet | 3 | of | 3 | Attorney Docket Number | 2003-IP-005305 (1391-45100) | | |

NON PATENT LITERATURE DOCUMENTS

| AO | GIULIANI, C., et al; "Flow Rate Allocation in Smart Wells"; High-Tech Wells Conference, February 11-13, 2003; Galveston | |
|----|--|--|
| AP | 1995 Press Release; "Halliburton Introduces Durasleeve For Easier Shifting, Better Seal and Lower Total Costs"; http://www.halliburton.com/news/archive/1995/hesnws_100995.jsp. ; 1 page | |
| AQ | Flow Control – Systems and Products – Sliding Sleeves; Baker Hughes; http://www.bakerhughes.com/bot/completions/flow_control/products_sliding.htm .; 1 page | |
| AR | Well Dynamics – Transforming Reservoirs Using SmartWell Technology, http://www.welldynamics.com/main.htm ; 8 pages | |
| AS | Steam Assisted Gravity Drainage (SAGD); Alberta Energy Research Institute; http://www.aeri.ab.ca/sec/suc_sto/suc_sto_001_2.cfm; 2 pages | |
| AT | In Situ Technology, http://www.energy.gov.ab.ca/com/Sands/Royalty+Info/Royalty+Related+Info/The+Ne , 1 page | |
| AU | North American Oil Reserves 2001; Alberta Energy Research Institute, http://www.energy.gov.ab.ca/cmn/docs/Oil Reserves 2001.pdf; 2 pages | |
| AV | BlackRock Seeks Approval to Develop Orion SAGD Project, http://www1.newswire.ca/releases/August2001/02/c6924.html . Develop Orion SAGD Project, Develop Orion SAGD Projec | |
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

Thermally-Controlled Valves And Methods Of Using The Same In A Wellbore

Application Number:

10/681020

10/681020

Confirmation Number:

6184

First Named Applicant:

David Steele

Attorney Docket Number: 1391-45100

Art Unit:

3672

Search string:

(6433991 or 6053992 or 6607036 or 5613634 or 5199497 or

4619320 or 6588500 or 6257334 or 5957202 or 5860475 or 5085275 or 4641710 or 20030155113 or 20030155111).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

| init | Cite.No. | Patent No. | Date | Patentee | Kind | Class | Subclass |
|------|----------|------------|------------|-----------------|------|-------|----------|
| | 1 | 6433991 | 2002-08-13 | Deaton et al. | | 361 | 191 |
| | 2 | 6053992 | 2000-04-25 | Wu et al. | | 148 | 402 |
| | 3 | 6607036 | 2003-08-19 | Ranson et al. | | 166 | 302 |
| | 4 | 5613634 | 1997-03-25 | Veronesi et al. | | 236 | 101 |
| | 5 | 5199497 | 1993-04-06 | Ross | | 166 | 381 |
| | 6 | 4619320 | 1986-10-28 | Adnyana et al. | | 166 | 65.1 |
| | 7 | 6588500 | 2003-07-08 | Lewis | | 166 | 61 |
| | 8 | 6257334 | 2001-07-10 | Cyr et al. | | 166 | 272.7 |
| | 9 | 5957202 | 1999-09-28 | Huang | | 166 | 272.3 |
| | 10 | 5860475 | 1999-01-19 | Ejiogu et al. | į | 166 | 245 |
| | 11 | 5085275 | 1992-02-24 | Gondouin | | 166 | 303 |
| | 12 | 4641710 | 1987-02-10 | Klinger | | 166 | 303 |

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

| init | Cite.No. | Pub. No. | Date | Applicant | Kind | Class | Subclass |
|------|----------|-------------|------------|-----------------|------|-------|----------|
| | 1 | 20030155113 | 2003-08-21 | Mitchell et al. |] | 166 | 68.5 |
| | 2 | 20030155111 | 2003-08-21 | Vinegar et al. |] | 166 | 59 |

Signature

| Examiner Name | Date |
|---------------|------|
| | |

UNITED STATES PATENT AND TRADEMARK OFFICE **ACKNOWLEDGEMENT RECEIPT**

Electronic Version 1.1 Stylesheet Version v1.1.1

> Title of Invention

Thermally-Controlled Valves And Methods Of Using The Same In A Wellbore

Submission Type:

Information Disclosure Statement

Application Number:

10/681020

10/681020

EFS ID:

58023

Server Response:

| Confirmation Code | Message |
|----------------------|---|
| ISVR1 | Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application |
| ICON1 | 6184 |
| ISYS5 | Filename= N/A BusinessRule= Validation System/Function Call Information. #Supporting Msg:Server unable to validate the Confirmaton/Application numbers at this time. They will be checked by PTO personnel later. |

First Named Applicant:

David Steele

Attorney Docket Number: 1391-45100

Timestamp:

2004-03-29 11:00:58 EDT

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File Listing:

| Doc. Name | File Name | Size (Bytes) |
|--------------|-----------------------|--------------|
| us-ids | 1391-45100-usidst.xml | 3966 |
| us-ids | us-ids.dtd | 7763 |
| us-ids | us-ids.xsl | 12026 |
| package-data | 1391-45100-pkda.xml | 1898 |
| package-data | package-data.dtd | 27025 |
| package-data | us-package-data.xsl | 19263 |
| | Total files size | 71941 |

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